10/648,984

FILE 'HOME' ENTERED AT 16:23:47 ON 16 JUN 2005

=> file biosis caplus caba agricola

=> s trehalose and (plant or arabidopsis or tobacco or plastid)
L1 1297 TREHALOSE AND (PLANT OR ARABIDOPSIS OR TOBACCO OR PLASTID)

=> duplicate remove l1
L2 914 DUPLICATE REMOVE L1 (383 DUPLICATES REMOVED)

=> s l1 and py<1998
L3 578 L1 AND PY<1998

=> duplicate remove l3
L4 437 DUPLICATE REMOVE L3 (141 DUPLICATES REMOVED)

=> d ti 1-100

L4 ANSWER 1 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transgenic plants expressing **trehalose**-6-phosphate synthase gene from regulated promoter

L4 ANSWER 2 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Yeast genes for **trehalose** synthase and their use in increasing the **trehalose** content of organisms and increasing stress resistance

L4 ANSWER 3 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Molecular mechanisms of cold acclimation and drought tolerance in plants.

L4 ANSWER 4 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Compositions and methods for the preservation of living tissue

L4 ANSWER 5 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Selaginella gene sl-tps/p and **trehalose**-6-phosphate synthetase/phosphatase and method for increasing **trehalose** content in organisms

L4 ANSWER 6 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulating metabolism by modifying intracellular level of **trehalose**-6-phosphate

L4 ANSWER 7 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Stabilized superoxide dismutase products for use in cosmetic, pharmaceutical and agri-food compositions

L4 ANSWER 8 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transgenic monocot **plant** with increased osmoprotectant content to enhance water deficit-tolerance

L4 ANSWER 9 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Methods and compositions for inhibiting hexokinase in mammalian cells and their use for treating diabetes

L4 ANSWER 10 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Foliar sprays containing glucooligosaccharides and their uses in ripening cultivation of rice plants for brewing

L4 ANSWER 11 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Foliar sprays containing glucooligosaccharides and their uses for ripening cultivation of wheat and barley

L4 ANSWER 12 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Glucooligosaccharide-containing adjuvant for **plant** nutrition and crop cultivation method using the adjuvant

L4 ANSWER 13 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN

TI Foliar sprays containing glucooligosaccharides and their use in rice ripening cultivation techniques

L4 ANSWER 14 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Food preservatives containing monoglyceride polycarboxylate esters (salts)

L4 ANSWER 15 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing **trehalose** with **plant** cells expressing **trehalose** phosphate synthase in the presence of trehalase inhibitor

L4 ANSWER 16 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI **Trehalose** induces antagonism towards Pythium debaryanum in Pseudomonas fluorescens ATCC 17400.

L4 ANSWER 17 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Metabolic and genotypic fingerprinting of fluorescent pseudomonads associated with the Douglas fir-Laccaria bicolor mycorrhizosphere.

L4 ANSWER 18 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Measurement of sugar on raw cotton by HPLC, individual carbohydrate concentrations and their relationship to stickiness potential

L4 ANSWER 19 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI **Trehalose**, an extreme temperature protector of phosphoenolpyruvate carboxylase from the C4-**plant** Cynodon dactylon.

L4 ANSWER 20 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Cryopreservation of dormant and non-dormant broad-leaved trees.

L4 ANSWER 21 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Preliminary evaluations of an enzyme approach to reduce cotton lint stickiness.

L4 ANSWER 22 OF 437 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Effects of ambient ozone concentrations on contents of non-structural carbohydrates in young Picea abies and Fagus sylvatica.

L4 ANSWER 23 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Molecular basis of symbiosis between Rhizobium and legumes

L4 ANSWER 24 OF 437 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Carbon allocation in mycorrhizae.

L4 ANSWER 25 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Cyclic AMP, a possible regulator of glycolysis in the ectomycorrhizal fungus Amanita muscaria.

L4 ANSWER 26 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
TI Pectate lyase isoenzymes and the pathogenicity of soft rotting strains of Erwinia for melon and cucumber

L4 ANSWER 27 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Cytoplasmic vitrification and survival of anhydrobiotic organisms.

L4 ANSWER 28 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Expression of the yeast **trehalose**-6-phosphate synthase gene in transgenic **tobacco** plants: Pleiotropic phenotypes include drought tolerance.

L4 ANSWER 29 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Preservation of biological materials under desiccation.

L4 ANSWER 30 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Role of sucrose for the acquisition of tolerance to cryopreservation of carrot somatic embryos

L4 ANSWER 31 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Effect of benomyl on Saccharomyces cerevisiae during continuous cultivation.

L4 ANSWER 32 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Inhibition of trehalase activity enhances **trehalose** accumulation in transgenic plants.

L4 ANSWER 33 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Viability of dry Trichoderma harzianum spores under storage.

L4 ANSWER 34 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Effects of osmoprotectants upon NaCl stress in rice.

L4 ANSWER 35 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Carbohydrate metabolism: storage carbohydrates

L4 ANSWER 36 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI [Production of new or modified carbohydrates in transgenic plants]. Erzeugung neuer oder modifizierter Kohlenhydrate in transgenen Pflanzen.

L4 ANSWER 37 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI The effects of nonionic hyperosmolarity and of high temperature on cell-associated low molecular weight saccharides from two peanut rhizobia strains

L4 ANSWER 38 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Qualitative analysis of components of solvable polysaccharose secreted by pine wood nematodes.

L4 ANSWER 39 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Sugar profiles of Spanish unifloral honeys

L4 ANSWER 40 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Two different cold resistance strategies in corn boring caterpillars of the same biotope.

L4 ANSWER 41 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Photosynthetic recovery of photosystem II and the oxygen-evolving complex in a desiccation-tolerant species: Selaginella lepidophylla (water replacement, **trehalose**)

L4 ANSWER 42 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI **Tobacco-plant** desiccation tolerance.

L4 ANSWER 43 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Enhanced accumulation of **trehalose** in transgenic plants, trehalase and **trehalose** phosphate synthase gene sequences, and increased drought tolerance

L4 ANSWER 44 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Trehalose** biosynthesis with transgenic plants expressing a **trehalose**-6-phosphate synthase gene from a regulated promoter

L4 ANSWER 45 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Carbohydrate composition during sporulation and germination of ascospores of Hasegawaea japonica.

L4 ANSWER 46 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cotton **plant** sugars and insect honeydew characterized by high

performance liquid chromatography

L4 ANSWER 47 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Characterization of Tetragenococcus halophila populations in Indonesian soy mash (kecap) fermentation

L4 ANSWER 48 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Metal-supplemented diets alter carbohydrate levels in tissue and hemolymph of gypsy moth larvae (Lymantria dispar, Lymantriidae, Lepidoptera).

L4 ANSWER 49 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Phosphorylase activities in pharate adult and adult **tobacco** hornworms, Manduca sexta

L4 ANSWER 50 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Environmental influence on trehalogenesis in amoebae of the cellular slime molds.

L4 ANSWER 51 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Sugar biotransformations by fungi on leaves of the resurrection **plant** Sporobolus stapfianus.

L4 ANSWER 52 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Pools of non-structural carbohydrates in soybean root nodules during water stress.

L4 ANSWER 53 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Metabolic engineering for increased salt tolerance: The next step.

L4 ANSWER 54 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Antibacterial activity of validamycin A against Pseudomonas solanacearum and its efficacy against tomato bacterial wilt.

L4 ANSWER 55 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Sucrose represses the developmentally controlled transient activation of the plastocyanin gene in **Arabidopsis** thaliana seedlings

L4 ANSWER 56 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Seasonal biochemical changes in eggs of Heterodera glycines in Missouri.

L4 ANSWER 57 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Development of a selective medium for Xanthomonas campestris pv. translucens.

L4 ANSWER 58 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Preservation of viable biological samples for experiments in space laboratories.

L4 ANSWER 59 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Effects of varied soil nitrogen supply on Norway spruce (Picea abies (L.) Karst.).

L4 ANSWER 60 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Sucrolytic enzyme activities in cotyledons of the faba bean: Developmental changes and purification of alkaline invertase.

L4 ANSWER 61 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI An enzyme-bound linamarin indicator paper strip for the semi-quantitative estimation of linamarin.

L4 ANSWER 62 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Biotechnological applications of the disaccharide **trehalose**

L4 ANSWER 63 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI The influence of nitrogen emissions on **plant**-insect interactions in pine stands

L4 ANSWER 64 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Effect of sole and combined pre-treatments on reserve accumulation, survival and germination of encapsulated and dehydrated carrot somatic embryos.

L4 ANSWER 65 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Range of expression and transmission instability of the kanamycin-resistance reporter gene in direct gene transfer experiments

L4 ANSWER 66 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17
TI Enhanced desiccation survival by engineering osmolyte biosynthesis in plants

L4 ANSWER 67 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI **Trehalose**: An osmoprotectant and stress indicator compound in high and very high gravity brewing.

L4 ANSWER 68 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Chemical and pharmacological study of higher fungi. II. Comparative investigation of the chemical composition of fruiting bodies and cultural and morphological characteristics of some Nematoloma (Fr.) P. Karst.

L4 ANSWER 69 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Continuous cultivation of Saccharomyces cerevisiae at different biotin concentrations in nutrient media.

L4 ANSWER 70 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Molecular characterization of a cDNA encoding **trehalose** -6-phosphate synthase/phosphatase from the resurrection **plant** Selaginella lepidophylla.

L4 ANSWER 71 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Chemical and pharmacological study of higher fungi. I. Chemical composition and pharmacological study of the fruiting bodies of Cortinarius armillatus (Fr.:Fr.) Fr. (Cortinariaceae).

L4 ANSWER 72 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Liposomes containing particulate materials

L4 ANSWER 73 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transformation and selection of maize tissue and the regeneration of stably transformed fertile plants

L4 ANSWER 74 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Plants expressing a foreign **trehalose** phosphate synthase gene and their use in the manufacture of **trehalose**

L4 ANSWER 75 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Production of **trehalose** in plants

L4 ANSWER 76 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Differential scanning calorimetry studies on the cysts of the potato-cyst nematode Globodera rostochiensis during freezing and melting.

L4 ANSWER 77 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 18
TI Carbon import into barley roots: effects of sugars and relation to cell expansion

L4 ANSWER 78 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Utilization of sucrose by Hymenoscyphus ericae (an ericoid endomycorrhizal fungus) and ectomycorrhizal fungi.

L4 ANSWER 79 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Comparative study of two trehalase activities from Fusarium oxysporum var. lini.

L4 ANSWER 80 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Sensitivity of the conidia of **plant** pathogenic fungi to gamma-rays, electron particles and X-ray (Bremsstrahlung) irradiation.

L4 ANSWER 81 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Chemical analysis of must from dropping and non-dropping, grafted and self-rooted grapevines cv Dolcetto

L4 ANSWER 82 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Gluconeogenesis and effect of nutritional status on TCA cycle activity in the insect Manduca sexta

L4 ANSWER 83 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI Effects of phlorizin and p-chloromercuribenzenesulfonic acid on sucrose and proline accumulation in detached tomato leaves submitted to NaCl and osmotic stresses

L4 ANSWER 84 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Effects of validamycin A, a potent trehalase inhibitor, and phytohormones on **trehalose** metabolism in roots and root nodules of soybean and cowpea.

L4 ANSWER 85 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Physiological states affect metabolic response to high temperature in Morimus funereus larvae.

L4 ANSWER 86 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Root carbon metabolism and anaplerosis in ectomycorrhizal trees.

L4 ANSWER 87 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Plumbagin effects on Helicoverpa armigera Hubner (Lepidoptera: Noctuidae) IV. Final instar haemolymph **trehalose**, cations and nucleic acids.

L4 ANSWER 88 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Bacterial soft rot of cabbage seed plants.

L4 ANSWER 89 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Transgenic **tobacco** plants as a model-system for the production of **trehalose**.

L4 ANSWER 90 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Effect of dietary regime and stressful temperatures on Morimus funereus larval metabolism.

L4 ANSWER 91 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Effects of heavy metal stress on carbohydrate and lipid concentrations in the haemolymph and total body tissue of parasitized Lymantria dispar L. larvae (Lepidoptera).

L4 ANSWER 92 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Investigation of fungal metabolites and acute toxicity studies from fruit-bodies of Hypholoma species (Strophariaceae).

L4 ANSWER 93 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Carbohydrate metabolism during the pupal molt of the **tobacco** hornworm, Manduca sexta.

L4 ANSWER 94 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Comparison of aerial and submerged spore properties for Trichoderma harzianum.

L4 ANSWER 95 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Freeze-drying of fungi: influence of composition and glass transition temperature of the protectant.

L4 ANSWER 96 OF 437 CABA COPYRIGHT 2005 CABI on STN DUPLICATE 23

TI Regulation of carbon allocation in a symbiotic **plant**/fungus interaction.

L4 ANSWER 97 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Partitioning of intermediary carbon metabolism in vesicular-arbuscular mycorrhizal leek.

L4 ANSWER 98 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI **Trehalose** and trehalase in plants: Recent developments.

L4 ANSWER 99 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Trehalose** as preservative for cut flowers and leafy plants

L4 ANSWER 100 OF 437 CABA COPYRIGHT 2005 CABI on STN
TI Biotechnology and the globalization of the U.S. food industry.

=> d bib abs 98 89 75 74 42-44 28 8 15 1

L4 ANSWER 98 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
AN 1996:67270 BIOSIS
DN PREV199698639405
TI **Trehalose** and trehalase in plants: Recent developments.
AU Mueller, Joachim; Boller, Thomas [Reprint author]; Wiemken, Andres
CS Botanisches Inst., Univ. Basel, Hebelstrasse 1, CH-4056 Basel, Switzerland
SO Plant Science (Limerick), (1995) Vol. 112, No. 1, pp. 1-9.
CODEN: PLSCE4. ISSN: 0168-9452.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 9 Feb 1996
Last Updated on STN: 13 Mar 1996
AB **Trehalose** is a non-reducing disaccharide consisting of two alpha-glycosidically linked glucose units. It accumulates in many microorganisms and invertebrate animals when they are exposed to various forms of stress, and it may serve as a protectant of enzymes and membranes, particularly under conditions of heat and desiccation stress. Most vascular plants lack the capacity to produce **trehalose**, except for a small number of desiccation tolerant plants, such as some ferns and the angiosperm Myrothamnus flabellifolia. In contrast, a highly specific trehalase activity has been described in many plants. The enzyme does not cleave other common alpha-glucosides, and it is highly sensitive to the inhibitor validamycin A. Trehalases have been found in various tissues; particularly high activities occur in pollen and legume root nodules. The possible functions of **plant** trehalase are discussed, focussing on its significance in the interaction of plants with **trehalose**-accumulating microorganisms.

L4 ANSWER 89 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation
AN 1995:338164 BIOSIS
DN PREV199598352464
TI Transgenic **tobacco** plants as a model-system for the production of **trehalose**.
AU Goddijn, Oscar J. M. [Reprint author]; Verwoerd, Theo C.; Voogd, Eline; Krutwagen, Ronny; De Graff, Peggy; Van Dun, Kees; De Laat, Ad; Van Den Elzen, Peter; Damm, Brigitte; Pen, Jan
CS MOGEN Int. NV, Einsteinweg 97, 2333 CB Leiden, Netherlands
SO Plant Physiology (Rockville), (1995) Vol. 108, No. 2 SUPPL., pp. 149.
Meeting Info.: Annual Meeting of the American Society of Plant Physiologists. Charlotte, North Carolina, USA. July 29-August 2, 1995.
CODEN: PLPHAY. ISSN: 0032-0889.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 2 Aug 1995
Last Updated on STN: 2 Aug 1995

L4 ANSWER 75 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:511574 CAPLUS
DN 122:257981
TI Production of **trehalose** in plants
IN Hoekema, Andreas; Pen, Jan; Does, Mirjam Petronella; Van Den Elzen, Petrus Josephus
PA Mogen International N.V., Neth.
SO PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9501446	A1	19950112	WO 1994-EP2167	19940630 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	WO 9506126	A1	19950302	WO 1993-EP2290	19930824 <--
	W: AU, BG, BR, BY, CA, CZ, FI, HU, JP, KR, NO, NZ, PL, RO, RU, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9473846	A1	19950124	AU 1994-73846	19940630 <--
	AU 697997	B2	19981022		
	EP 711353	A1	19960515	EP 1994-923710	19940630 <--
	EP 711353	B1	20041208		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	BR 9406997	A	19960910	BR 1994-6997	19940630 <--
	HU 74666	A2	19970128	HU 1995-3723	19940630 <--
	JP 09501313	T2	19970210	JP 1995-503286	19940630 <--
	JP 3645260	B2	20050511		
	RU 2143496	C1	19991227	RU 1996-101969	19940630
	RO 115650	B1	20000428	RO 1995-2295	19940630
	AT 284446	E	20041215	AT 1994-923710	19940630
	US 5925804	A	19990720	US 1995-569150	19951221
	FI 9506317	A	19951229	FI 1995-6317	19951229 <--
	NO 9505354	A	19960102	NO 1995-5354	19951229 <--
	BG 63401	B1	20011231	BG 1995-100268	19951229
PRAI	EP 1993-201904	A	19930630		
	WO 1993-EP2290	A	19930824		
	WO 1994-EP2167	W	19940630		

AB The present invention provides for the production of **trehalose** in a **plant** host due to the presence in said **plant** host of a **plant**-expressible gene which comprises in sequence: a transcriptional initiation region that is functional in said **plant** host, a DNA sequence encoding a **trehalose** phosphate synthase activity, and optionally a transcriptional termination sequence that is functional in said **plant** host. The otsA gene of E. coli was cloned and a binary vector containing the cauliflower mosaic virus 35S promoter fused to the otsA gene fused to the A. tumefaciens nopaline synthase transcription terminator was prepared Transgenic potatoes producing higher levels of **trehalose** than control potato plants were created using this vector. Addnl., transgenic potatoes expressing antisense sucrose phosphate synthase and antisense ADP-glucose pyrophosphorylase nucleic acids as well as the otsA gene were prepared These transgenic potatoes had even higher levels of **trehalose** than did those expressing only the otsA gene.

L4 ANSWER 74 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:640739 CAPLUS
DN 123:52627
TI Plants expressing a foreign **trehalose** phosphate synthase gene and their use in the manufacture of **trehalose**
IN Hoekema, Andreas; Pen, Jan; Does, Mirjam Petronella; Van Den Elzen, Peter

J. M.
PA Mogen International N.V., Neth.
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9506126	A1	19950302	WO 1993-EP2290	19930824 <--
	W: AU, BG, BR, BY, CA, CZ, FI, HU, JP, KR, NO, NZ, PL, RO, RU, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9349533	A1	19950321	AU 1993-49533	19930824 <--
	CA 2166063	AA	19950112	CA 1994-2166063	19940630 <--
	WO 9501446	A1	19950112	WO 1994-EP2167	19940630 <--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9473846	A1	19950124	AU 1994-73846	19940630 <--
	AU 697997	B2	19981022		
	EP 711353	A1	19960515	EP 1994-923710	19940630 <--
	EP 711353	B1	20041208		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CN 1129015	A	19960814	CN 1994-193026	19940630 <--
	CN 1131315	B	20031217		
	JP 09501313	T2	19970210	JP 1995-503286	19940630 <--
	JP 3645260	B2	20050511		
	RO 115650	B1	20000428	RO 1995-2295	19940630
	PL 179629	B1	20001031	PL 1994-312303	19940630
	CZ 290830	B6	20021016	CZ 1995-3449	19940630
	AT 284446	E	20041215	AT 1994-923710	19940630
	FI 9506317	A	19951229	FI 1995-6317	19951229 <--
	NO 9505354	A	19960102	NO 1995-5354	19951229 <--
PRAI	EP 1993-201904	A	19930630		
	WO 1993-EP2290	W	19930824		
	WO 1994-EP2167	W	19940630		

AB Plants accumulating **trehalose** are constructed by the introduction of an expression cassette for a **trehalose** phosphate synthase. In addition, an antisense expression construct for the endogenous sucrose phosphate synthase or ADP-glucose pyrophosphorylase gene may be used. The use of the otsA gene of Escherichia coli to increase the **trehalose** content of potato tubers was demonstrated. The use of antisense genes for sucrose phosphate synthase and the pyrophosphorylase was also demonstrated.

L4 ANSWER 42 OF 437 CABA COPYRIGHT 2005 CABI on STN
AN 96:126728 CABA
DN 19961608991
TI **Tobacco-plant** desiccation tolerance
AU Gaff, D.
CS Department of Ecology and Evolutionary Biology, Monash University, Clayton, Vic. 3168, Australia.
SO Nature (London), (**1996**) Vol. 382, No. 6591, pp. 502. 3 ref.
ISSN: 0028-0836
DT Letter
LA English
ED Entered STN: 19961015
Last Updated on STN: 19961015
AB **Tobacco** plants transformed for the gene Tps1, which enables transgenic plants to synthesize the disaccharide **trehalose**, exhibit increased drought tolerance compared to the wild-type. The influence of **trehalose** on osmoregulation was put forward as an explanation of improved water retention and desiccation tolerance [Nature (London) (1996) 379, 683-684]. Here it is argued that the data indicate

that stomata in the transgenic plants begin closing at milder drought stress than stomata in non-transgenic plants, thus improving water retention. Protoplasmic drought tolerance is also suggested as a possible resistance mechanism, although further data would be needed to investigate this possibility.

L4 ANSWER 43 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:541236 CAPLUS
DN 125:187588
TI Enhanced accumulation of **trehalose** in transgenic plants, trehalase and **trehalose** phosphate synthase gene sequences, and increased drought tolerance
IN Goddijn, Oscar Johannes Maria; Verwoerd, Teunis Cornelis; Krutwagen, Ronny Wilhelmus Hermanus Henrika; Voogd, Eline
PA Mogen International N.V., Neth.
SO PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9621030	A1	19960711	WO 1996-EP80	19960103 <--
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
ZA 9600037	A	19960710	ZA 1996-37	19960103 <--
AU 9644376	A1	19960724	AU 1996-44376	19960103 <--
PRAI EP 1995-200008	A	19950104		
EP 1995-202415	A	19950907		
WO 1996-EP80	W	19960103		

AB The invention provides a process for producing **trehalose** in **plant** cells capable of trehalase by growing **plant** cells having the genetic information required for the production of **trehalose** and trehalase, or cultivating a **plant** or a part thereof comprising such **plant** cells, characterized in that said **plant** cells are grown, or said **plant** o a part thereof is cultivated in the presence of a trehalase inhibitor.

L4 ANSWER 44 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:118077 CAPLUS
DN 124:137842
TI **Trehalose** biosynthesis with transgenic plants expressing a **trehalose**-6-phosphate synthase gene from a regulated promoter
IN Londesborough, John; Tunnela, Outi; Holmstroem, Kjell-Ove; Maentylae, Einar; Welin, Bjoern; Mandal, Abul; Palva, E. Tapio
PA Alko Group Ltd., Finland
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9600789	A1	19960111	WO 1995-FI377	19950629 <--
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2193861	AA	19960111	CA 1995-2193861	19950629 <--
AU 9527944	A1	19960125	AU 1995-27944	19950629 <--

	AU 699391	B2	19981203		
	GB 2303856	A1	19970305	GB 1996-27137	19950629 <--
	GB 2303856	B2	19981230		
	EP 763118	A1	19970319	EP 1995-923355	19950629 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	HU 75659	A2	19970528	HU 1996-3608	19950629 <--
	HU 221613	B	20021128		
	CN 1159833	A	19970917	CN 1995-194807	19950629 <--
	JP 10501978	T2	19980224	JP 1995-502849	19950629
	CZ 294329	B6	20041215	CZ 1996-3782	19950629
	FI 9605132	A	19970228	FI 1996-5132	19961219 <--
	US 6130368	A	20001010	US 1997-765691	19970318
PRAI	FI 1994-3133	A	19940629		
	US 1992-836021	B1	19920214		
	US 1992-841997	A2	19920228		
	WO 1993-FI49	A2	19930215		
	US 1994-290301	A2	19940815		
	WO 1995-FI377	W	19950629		

AB Plants producing and accumulating **trehalose** are prepared by introducing the gene for a **trehalose**-6-phosphate synthase (TPS) under the control of non-constitutive (regulatable) promoter. The promoter allows for temporal, topol. or stress-induced control over the expression of the gene. The invention can be used for protecting staple crop plants against drought, high salinity or temperature extremes and for improving the storage properties of harvested plants including green food stuffs, picked fruits and ornamental plants. The TPS1 gene for the catalytic subunit of the yeast TPS under control of the **Arabidopsis** thaliana Rubisco small subunit gene promoter (PatslA) was introduced into **tobacco** using kanamycin resistance as a selectable marker. Twenty of 26 transgenic plants produced material reacting with anti-TSP antibodies and had leaf **trehalose** levels 4-4--fold greater than those of control plants. Detached leaves of high-**trehalose** transformants showed greater resistance than to drying than those of control plants.

L4 ANSWER 28 OF 437 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
AN 1997:366642 BIOSIS
DN PREV199799658575
TI Expression of the yeast **trehalose**-6-phosphate synthase gene in transgenic **tobacco** plants: Pleiotropic phenotypes include drought tolerance.
AU Romero, Carlos; Belles, Jose M.; Vaya, Jose L.; Serrano, Ramon; Culianez-Macia, Francisco A. [Reprint author]
CS Inst. Biol. Mol. Celular Plantas, Univ. Politecnica de Valencia, CSIC, Camino de Vera s/n, E-46022 Valencia, Spain
SO Planta (Heidelberg), (1997) Vol. 201, No. 3, pp. 293-297.
CODEN: PLANAB. ISSN: 0032-0935.
DT Article
LA English
ED Entered STN: 25 Aug 1997
Last Updated on STN: 25 Aug 1997
AB The yeast **trehalose**-6-phosphate synthase gene (TPS1) was engineered under the control of the cauliflower mosaic virus regulatory sequences (CaMV35S) for expression in plants. Using Agrobacterium-mediated transfer, the gene was incorporated into the genomic DNA and constitutively expressed in Nicotiana tabacum L. plants. **Trehalose** was determined in the transformants, by anion-exchange chromatography coupled to pulsed amperometric detection. The non-reducing disaccharide accumulated up to 0.17 mg per g fresh weight in leaf extracts of transgenic plants. **Trehalose** accumulating plants exhibited multiple phenotypic alterations, including stunted growth, lancet-shaped leaves, reduced sucrose content and improved drought tolerance. These pleiotropic effects, and the fact that water loss from detached leaves was not significantly affected by **trehalose** accumulation, suggest that synthesis of this sugar, rather than leading to an osmoprotectant effect, had altered sugar metabolism and regulatory pathways affecting **plant** development and stress tolerance.

L4 ANSWER 8 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:499263 CAPLUS
DN 127:173982
TI Transgenic monocot **plant** with increased osmoprotectant content to enhance water deficit-tolerance
IN Adams, Thomas R.; Anderson, Paul C.; Daines, Richard J.; Gordon-Kamm, William; Kausch, Albert P.; Mann, Michael T.; Orr, Peter M.; Warner, David C.
PA Dekalb Genetics Corp., USA; Adams, Thomas R.; Anderson, Paul C.; Daines, Richard J.; Gordon-Kamm, William; Kausch, Albert P.; Mann, Michael T.; Orr, Peter M.; Warner, David C.
SO PCT Int. Appl., 134 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 8

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9726365	A2	19970724	WO 1997-US978	19970117 <--
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	US 5780709	A	19980714	US 1996-594861	19960119
	AU 9717065	A1	19970811	AU 1997-17065	19970117 <--
	EP 889967	A2	19990113	EP 1997-903051	19970117
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 9707017	A	19990720	BR 1997-7017	19970117
PRAI	US 1996-594861	A	19960119		
	US 1993-113561	A2	19930825		
	WO 1997-US978	W	19970117		

AB Provided is a recombinant DNA method for conferring tolerance or resistance to water or salt stress in a monocot **plant** by altering the osmoprotectant (e.g. mannitol) content in the monocot **plant**. The method consists of introducing a recombinant DNA encoding an enzyme that catalyzes the synthesis of an osmoprotectant in **plant** cells, fertile plants are then grown from the transformed cells. Preparation of a mannitol dehydrogenase (MtlD) expression vector in combination of constitutive expression promoters, tissue-specific promoters, or environment-responsive promoters for maize is described. Transgenic maize plants prepared with this method were characterized for their water and salt tolerance.

L4 ANSWER 15 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:537604 CAPLUS
DN 127:175495
TI Method for producing **trehalose** with **plant** cells expressing **trehalose** phosphate synthase in the presence of trehalase inhibitor
IN Goddijn, Oscar Johannes Maria; Verwoerd, Teunis Cornelis; Krutwagen, Ronny Wilhelmus Herm; Voogd, Eline
PA Mogen International N.V., Neth.
SO Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 784095	A2	19970716	EP 1997-200022	19970106 <--
	EP 784095	A3	19971229		

R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

US	2003097673	A1	20030522	US 1997-779460	19970107
US	6881877	B2	20050419		
AU	9710085	A1	19970717	AU 1997-10085	19970109 <--
AU	719168	B2	20000504		
CA	2194816	AA	19970713	CA 1997-2194816	19970110 <--
CN	1165859	A	19971126	CN 1997-102986	19970110 <--
BR	9700057	A	19981110	BR 1997-57	19970113
AU	754482	B2	20021114	AU 2000-48921	20000731
PRAI PY	1996-9	A	19960112		

AB The invention provides a process for producing **trehalose** in **plant** cells capable of producing trehalase by growing **plant** cells having the genetic information required for the production of **trehalose** and trehalase, or cultivating a **plant** or a part thereof comprising such **plant** cells, characterized in that said **plant** cells are grown, or said **plant** or a part thereof, is cultivated in the presence of a trehalase inhibitor. The **plant** or **plant** cell may express an (exogenous) trehalase phosphate synthase gene or a bipartite **trehalose** phosphate synthase-**trehalose** phosphate phosphatase gene. The trehalase inhibitor may be validamycin A, the 86 kDa protein of the cockroach, or an antisense trehalase gene. The sunflower bipartite **trehalose** phosphate synthase-**trehalose** phosphate phosphatase gene was cloned and sequenced. Microtubers from transgenic potato plants expressing the E. coli **trehalose** phosphate synthase gene from a patatin promoter as well as an antisense trehalase gene accumulated **trehalose** in amts. ≥0.01% (fresh weight).

L4 ANSWER 1 OF 437 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:718252 CAPLUS
DN 133:264097
TI Transgenic plants expressing **trehalose**-6-phosphate synthase gene from regulated promoter
IN Londesborough, John; Tunnela, Outi; Holmstrom, Kjell-Ove; Mantyla, Einar; Welin, Bjorn; Mandal, Abul; Palva, Tapio E.
PA BTG International Ltd., UK
SO U.S., 21 pp., Cont.-in-part of U.S. 5,792,921.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6130368	A	20001010	US 1997-765691	19970318
US 5422254	A	19950606	US 1992-841997	19920228 <--
WO 9317093	A2	19930902	WO 1993-FI49	19930215 <--
WO 9317093	A3	19930930		

W: AT, AU, BB, BG, BR, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG

US	5792921	A	19980811	US 1994-290301	19940815
WO	9600789	A1	19960111	WO 1995-FI377	19950629 <--

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT

RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

PRAI US	1992-836021	B1	19920214
US	1992-841997	A2	19920228
WO	1993-FI49	A2	19930215
FI	1994-3133	A	19940629
US	1994-290301	A2	19940815

WO 1995-FI377 W 19950629

AB The present invention concerns transgenic plants producing **trehalose** and methods of increasing the **trehalose** content of plants. According to the invention, the plants of interest are transformed with the coding sequence of a gene for **trehalose** -6-phosphate synthase fused to a non-constitutive **plant** promoter, which allows for temporal, topol. or stress-induced control over the expression of the gene. The invention can be used for protecting staple crop plants against drought, high salinity or temperature extremes and for improving the storage properties of harvested plants including green food stuffs, picked fruits and ornamental plants. The TPS1 gene for the catalytic subunit of the yeast TPS under control of the **Arabidopsis** thaliana Rubisco small subunit gene promoter (Pats1A) was introduced into **tobacco** using kanamycin resistance as a selectable marker. Wenty of 26 transgenic plants produced material reacting with anti-TSP antibodies and had leaf **trehalose** levels 4-4--fold greater than those of control plants. Detached leaves of high-**trehalose** transformants showed greater resistance than to drying than those of control plants.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s trehalose and (plastid or chloroplast)
L5 36 TREHALOSE AND (PLASTID OR CHLOROPLAST)

=> duplicate remove l5
L6 20 DUPLICATE REMOVE L5 (16 DUPLICATES REMOVED)

=> d ti 1-20

L6 ANSWER 1 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Expression of **trehalose** 6-phosphate synthase in plant plastids.

L6 ANSWER 2 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Genome-wide reprogramming of primary and secondary metabolism, protein synthesis, cellular growth processes, and the regulatory infrastructure of Arabidopsis in response to nitrogen.

L6 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI β-amylase induction and the protective role of maltose during temperature shock

L6 ANSWER 4 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI MAPMAN: A user-driven tool to display genomics data sets onto diagrams of metabolic pathways and other biological processes.

L6 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Double-stranded RNAs as replicating expression vectors for plants

L6 ANSWER 6 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Accumulation of **trehalose** within transgenic chloroplasts confers drought tolerance.

L6 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Breeding of starch utilization yeast

L6 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transgenic plants expressing yeast **trehalose**-6-phosphate synthase (TPS1) for tolerance of drought stress

L6 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Chloroplast** fructose-1,6-bisphosphatase from Oryza differs in salt tolerance property from the Porteresia enzyme and is protected by osmolytes

L6 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

TI Method for producing transgenic plants resistant to glyphosate herbicides

L6 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing transgenic plants resistant to glyphosate herbicides

L6 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing transgenic plants resistant to glyphosate herbicides

L6 ANSWER 13 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Isolation and characterisation of chloroplasts from Myrothamnus flabellifolius Welw.

L6 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI Expression of microbial genes for enzymes of **trehalose** biosynthetic genes in plants and the improvement of plant drought resistance

L6 ANSWER 15 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI Release of two peripheral proteins from **chloroplast** thylakoid membranes in the presence of a Hofmeister series of chaotropic anions.

L6 ANSWER 16 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI **Trehalose** increases freeze-thaw damage in liposomes containing **chloroplast** glycolipids.

L6 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
TI The role of pea **chloroplast** α-glucosidase in transitory starch degradation

L6 ANSWER 18 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI INDUCTION OF NON-BILAYER LIPID PHASE SEPARATIONS IN **CHLOROPLAST** THYLAKOID MEMBRANES BY COMPATIBLE CO-SOLUTES AND ITS RELATION TO THE THERMAL STABILITY OF PHOTOSYSTEM II.

L6 ANSWER 19 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation onSTN
TI EXCHANGE OF METABOLITES IN CYANOPHORA-PARADOXA AND ITS CYANELLES.

L6 ANSWER 20 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on
TI LOW CONCENTRATIONS OF **TREHALOSE** PROTECT ISOLATED THYLAKOIDS AGAINST MECHANICAL FREEZE-THAW DAMAGE.

=> d bib abs 14 12 8 1

L6 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:595356 CAPLUS
DN 131:226265
TI Expression of microbial genes for enzymes of **trehalose** biosynthetic genes in plants and the improvement of plant drought resistance
IN Lebel, Edouard Guillaume; Heifetz, Peter Bernard; Goff, Stephen Arthur
PA Novartis A.-G., Switz.; Novartis-Erfindungen Verwaltungsgesellschaft Mbh
SO PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9946370	A2	19990916	WO 1999-EP1516	19990309
WO 9946370	A3	19991118		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA	2320896	AA	19990916	CA 1999-2320896	19990309
AU	9933295	A1	19990927	AU 1999-33295	19990309
AU	748604	B2	20020606		
TR	200002624	T2	20001121	TR 2000-200002624	19990309
BR	9909258	A	20001128	BR 1999-9258	19990309
EP	1064365	A2	20010103	EP 1999-914496	19990309

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

JP	2002505875	T2	20020226	JP 2000-535737	19990309
US	2003009784	A1	20030109	US 2001-894799	20010628
US	6686516	B2	20040203		
US	2004078848	A1	20040422	US 2003-648984	20030827
PRAI US	1998-77665P	P	19980311		
US	1999-262615	B3	19990304		
WO	1999-EP1516	W	19990309		
US	2001-894799	A3	20010628		

AB Plants expressing microbial genes for enzymes of **trehalose** biosynthesis from regulatable promoters and that can accumulate **trehalose** when needed to survive drought conditions are described. The plants are generally more stress-tolerant and developmentally normal. The invention also provides nucleotide sequences encoded novel **trehalose** biosynthetic enzymes. Expression cassettes using the promoter of the pathogenesis-related protein PR-1a gene to drive expression of the otsA (**trehalose** 6-phosphate synthase) and otsB (**trehalose**-6-phosphate phosphatase) genes were constructed and introduced into tobacco by Agrobacterium-mediated transformation. Lines expressing the genes and shown to increase **trehalose**, sugar, and polyol production upon induction with BTH were identified. Operon-like expression constructs for plastids are also described.

L6 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:790645 CAPLUS
DN 133:345570
TI Method for producing transgenic plants resistant to glyphosate herbicides
IN Hawkes, Timothy Robert; Warner, Simon Anthony James; Andrews, Christopher John; Bachoo, Satvinder; Pickerill, Andrew Paul
PA Zeneca Limited, UK
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000066746	A1	20001109	WO 2000-GB1559	20000420

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA	2365590	AA	20001109	CA 2000-2365590	20000420
EP	1173580	A1	20020123	EP 2000-920919	20000420

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

BR	2000010169	A	20020205	BR 2000-10169	20000420
JP	2003527080	T2	20030916	JP 2000-615768	20000420
ZA	2001008768	A	20030124	ZA 2001-8768	20011024
US	2003049814	A1	20030313	US 2001-11672	20011029
PRAI GB	1999-9971	A	19990429		
GB	1999-9972	A	19990429		

	GB 1999-17837	A	19990729
	GB 1999-17842	A	19990729
	GB 1999-30190	A	19991221
	GB 1999-30206	A	19991221
	GB 1999-30214	A	19991221
	GB 1999-30216	A	19991221
	WO 2000-GB1559	W	20000420

AB The present invention provides, inter alia, an isolated rice DNA sequences comprising a region encoding a **chloroplast** transit peptide and a glyphosate resistant 5-enolpyruvylshikimate phosphate synthase (EPSPS), the said region being under expression control of a plant operable promoter, with the provisos that the said promoter is not heterologous with respect to the said region, and the **chloroplast** transit peptide is not heterologous with respect to the said synthase. The invention also relates to producing transgenic plants that are substantially resistant or tolerant to herbicides which have 5-enolpyruvylshikimate phosphate synthase as their site of action, of which N-phosphonomethylglycine is the pre-eminent example.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:661562 CAPLUS
DN 135:224241
TI Transgenic plants expressing yeast **trehalose**-6-phosphate synthase (TPS1) for tolerance of drought stress
IN Daniell, Henry; Lee, Seung-bum; Byun, Myung Ok
PA Auburn University, USA; University of Central Florida
SO PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001064850	A1	20010907	WO 2001-US6271	20010228
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2401855	AA	20010907	CA 2001-2401855	20010228
	EP 1263934	A1	20021211	EP 2001-913108	20010228
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2004064846	A1	20040401	US 2002-807836	20020211
PRAI	US 2000-185658P	P	20000229		
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AB This invention provides a process of create a transgenic plant expressing yeasttrehalose-6-phosphate synthase (TPS1) for tolerance of drought stress. The TPS1 gene was integrated in to the genome of chromoplast of transgenic plants and the plants over expressed TPS1 for salt, temperature, and drought stress. The process provides in this invention can be used in agriculture to produce stress tolerance plants.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 1 OF 20 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AN 2004:150299 BIOSIS
DN PREV200400153796
TI Expression of **trehalose** 6-phosphate synthase in plant plastids.
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PI US 6686516 20040203
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 3 2004) Vol. 1279, No. 1. http://www.uspto.gov/web/menu/patdata.html. e-file.
ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 17 Mar 2004
Last Updated on STN: 17 Mar 2004
AB The invention provides novel transgenic plants which express **trehalose** biosynthetic genes, e.g., under control of an inducible promoter, which are developmentally normal, together with methods for improving stress tolerance in said plants, methods of improving food quality, and other methods of making and using the plants of the invention. The invention also provides nucleotide sequences encoded novel **trehalose** biosynthetic enzymes.

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